The Lepidopterological Society of Japan

蝶と蛾 *Trans. lepid. Soc. Japan* **56** (2): 131–144, March 2005

A study of Chinese *Cosmopterix* Hübner (Lepidoptera, Cosmopterigidae), with descriptions of new species

Hiroshi KUROKO[1] and Youqiao LIU[2]

[1] 1-4-3 Mai, Hannan-shi, Osaka Pref., 599-0224 Japan
[2] Zoological Institute, Academia Sinica, Beijing, China

Abstract Seven new species, *Cosmopterix brevicaudella* sp. nov., *C. baihashanella* sp. nov., *C. sichuanella* sp. nov., *C. bifidiguttata* sp. nov., *C. longivalvella* sp. nov., *C. nanshanella* sp. nov., *C. jiangxiella* sp. nov., are described with illustrations from China, and five newly recorded species, C. *argentitegulella* Sinev, *C. setariella* Sinev, *C. rhynchognathosella* Sinev, *C. gracilis* Sinev, *C. dulcivora* Meyrick (=*C. sublaetifica* Kuroko), from China are redescribed with illustrations. Two already known species, *C. attenuatella* (Walker), *C. phyllostachysea* Kuroko, are recorded and illustrated.

Key words Cosmopterigidae, Cosmopterix, new species, unrecorded species, China, taxonomy.

Introduction

Having had the opportunity to examine the specimens of the genus *Cosmopterix* Hübner, 1825 in the collection of the Zoological Institute, Academia Sinica, in this paper we treat seven new species, five species newly recorded and two species already known from China.

It is likely that over a hundred species of *Cosmopterix* inhabit China, because there are wide diversities in the characters of the male genitalia in Chinese *Cosmopterix* which we have examined. However, only four species, *C. zieglerella*, *C. fulminella*, *C. attenuatella* and *C. phyllostachysea*, have hitherto been recorded from China because of the difficulty of identification.

Although the adults of this genus are very tiny (6–15 mm in wingspread), the members of this genus can easily be recognised by the characteristic maculation of the forewing as shown in Fig. 1. But it is very difficult to identify them by superficial characters alone, since their pattern is nearly common among species. For exact identification, the careful examination of characters in the male and female genitalia is necessary.

The type material is preserved in the collection of the Zoological Institute, Academia Sinica, Beijing, unless otherwise stated.

Acronyms. BMNH: The Natural History Museum, London, UK. OPU: Entomological Laboratory, Graduate School of Agriculture and Biological Sciences, Osaka Prefecture University, Sakai, Japan.

Maculation patterns of the forewing of the genus *Cosmopterix*

Maculation of the species belonging to this genus is very uniform and is arranged in a regular pattern as shown in Fig. 1. The ground color of the forewing can be roughly divided into two types: dark fuscous to bronzy-fuscous (type 1) and olive-brown to ochreous-brown (type 2). We have proposed nomenclature for each part of the forewing maculation as follows: in both types, a white fine line runs along the dorsal edge of the wing from base to nearly 1/4; this is the dorso-basal line. In type 1, subbasal lines are usually shorter than in

NII-Electronic Library Service

The Lepidopterological Society of Japan

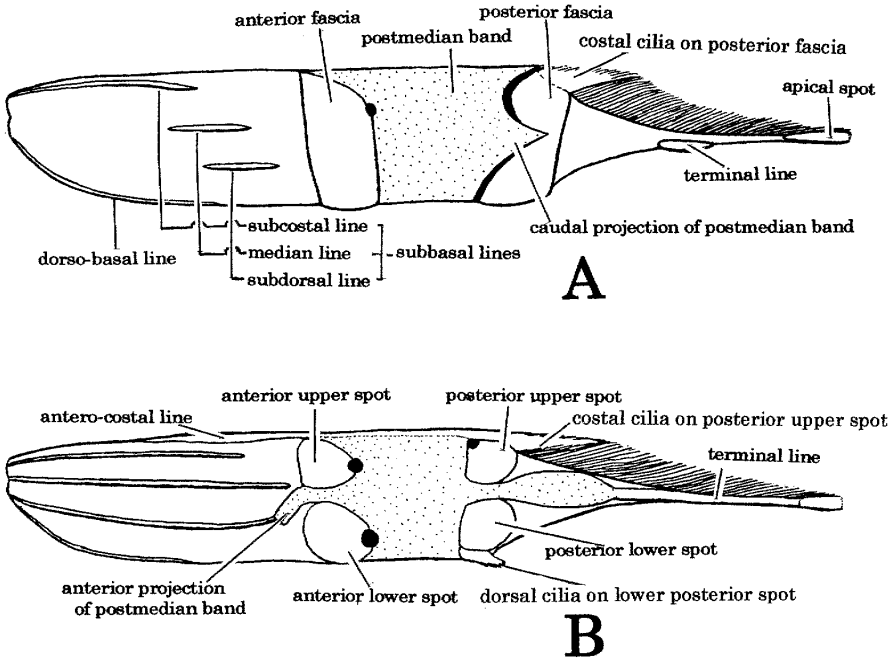


Fig. 1. Maculation patterns of forewing of *Cosmopterix*. A: Type 1. B: Type 2. Type 1: *setariella*, *rhynchognathosella*, *attenuatella*, *brevicaudella*, *baihashanella*, *sichuanella*, *bifidiguttata*, *longivalvella*, *phyllostachysea*, *nanshanella*. Type 2: *gracilis*, *jiangxiella*, *dulcivora*.

type 2: median and subdorsal lines especially appear as short lines in many cases. In type 2, subbasal lines are elongated, especially the median line, which starts from the base of the wing and reaches almost to the anterior spots. In some species, a silvery-white antero-costal line protrudes from the postmedian band anteriorly. A silvery-metallic anterior fascia crosses vertically or obliquely at about the middle of the wing. Sometimes the fascia is divided into two spots by an anterior projection of the postmedian band, and thus becomes upper anterior and lower anterior spots.

There is usually a postmedian band is between the anterior and posterior fasciae, usually colored yellowish-orange to yellow in type-1 and pale yellow to ochreous-yellow in type 2. A silvery-metallic posterior fascia crosses the wing, but in many cases it is divided into two spots by a caudal projection protruding from the postmedian band, and thus becomes upper and lower posterior spots. Sometimes the caudal projection does not reach the outer edge of the posterior fascia, but in some cases it extends beyond the fascia as a slender line or is prolonged to become a bifurcate or elliptical patch. Usually white costal cilia are present on the posterior fascia or upper posterior spot and in a few cases white dorsal cilia on the lower posterior spot. A silvery-white terminal line, sometimes tinged with metallic blue, runs from the end of the caudal projection to the apex of the wing, sometimes as a sinuate or interrupted line, or as a long spot. Usually a snow-white spot is present in the apical cilia (at the end of the terminal line); this is the apical spot.

The pattern consisting of subbasal lines fused into a subbasal patch as in *C. argentitegulella* is thought to be a primitive pattern of type-1.

Cosmopterix argentitegulella Sinev (Figs 15, 29)

Cosmopterix argentitegulella Sinev, 1985: 80, figs.

NII-Electronic Library Service

The Lepidopterological Society of Japan

♂, wing length 6.0 mm. Thorax with silvery-metallic tegulae and a metallic broad central line. Forewing dark fuscous; subbasal lines fused with each other and forming an oblique patch with strong and elongated subdorsal line; anterior metallic fascia vertical, followed by some black scales; postmedian band moderate, orange; caudal projection beyond metallic posterior spots bifurcate, lower arm weak; terminal line extending from just beyond the projection to apex of wing.

Male genitalia. Right brachium broadened on apical half, forming a beak-like shape with acute apex; left brachium rod-shaped; anellus lobe lunate on apical half; valva usual shape, with round ventral margin; aedeagus bulbous, opening moderate.

Material examined. 1 ♂, Jiangxi, Lushan, 5. vi. 1982, slide no. 84008.

Remarks. Characterized by the subbasal lines being united to form a subbasal patch and the bifurcate orange caudal projection of postmedian band (in *C. phyladelphella* Sinev, 1985 from Russia it is a straight line). This species shows primitive characteristics in having the subbasal patch on the forewing and a developed left brachium.

Distribution. China (Jiangxi), Russia. New record from China.

Cosmopterix setariella Sinev (Figs 3, 17)

Cosmopterix setariella Sinev, 1985: 88.

♂, wing length 4.5 mm. Antenna black, apical 3 white, 4 black, 1 white, 1 black, 1 white. Forewing dark fuscous; silvery-white subbasal lines rather short but evident, subdorsal line twice as long as median line and oblique, white dorso-basal line toward base; anterior fascia vertical, golden metallic, followed above middle by a small black dot; orange-yellow postmedian band a little narrower dorsally, caudal projection of the band not extending beyond metallic posterior upper spot; white terminal spot midway to apex; apical spot snow-white; cilia fuscous.

Male genitalia. Right brachium with T-shaped apex, one of the arms long protruding straightly, with a small apical hook; left brachium lobed; anellus lobe broad on apical half and broadest in the middle of the lobe; valva more or less slender, ventral margin rounded, apex (upper edge of cucullus) protruded; aedeagus bulbous.

Material examined. 1 ♂, Jiangxi, Dayu, 22. vi. 1976, slide no. 85017.

Remarks. Similar to *C. attenuatella* (Walker), but can be distinguished by the 3 white apical joints of the antenna and the caudal projection of the postmedian band not extending beyond the silvery upper posterior spot. In the male genitalia, it can be easily distinguished from any other species of this genus by the characteristic shape of the right brachium.

Distribution. China (Jiangxi), Russia. New record from China.

Host plant. Gramineae. *Setaria viridis* (L.) Beauv. in Russia.

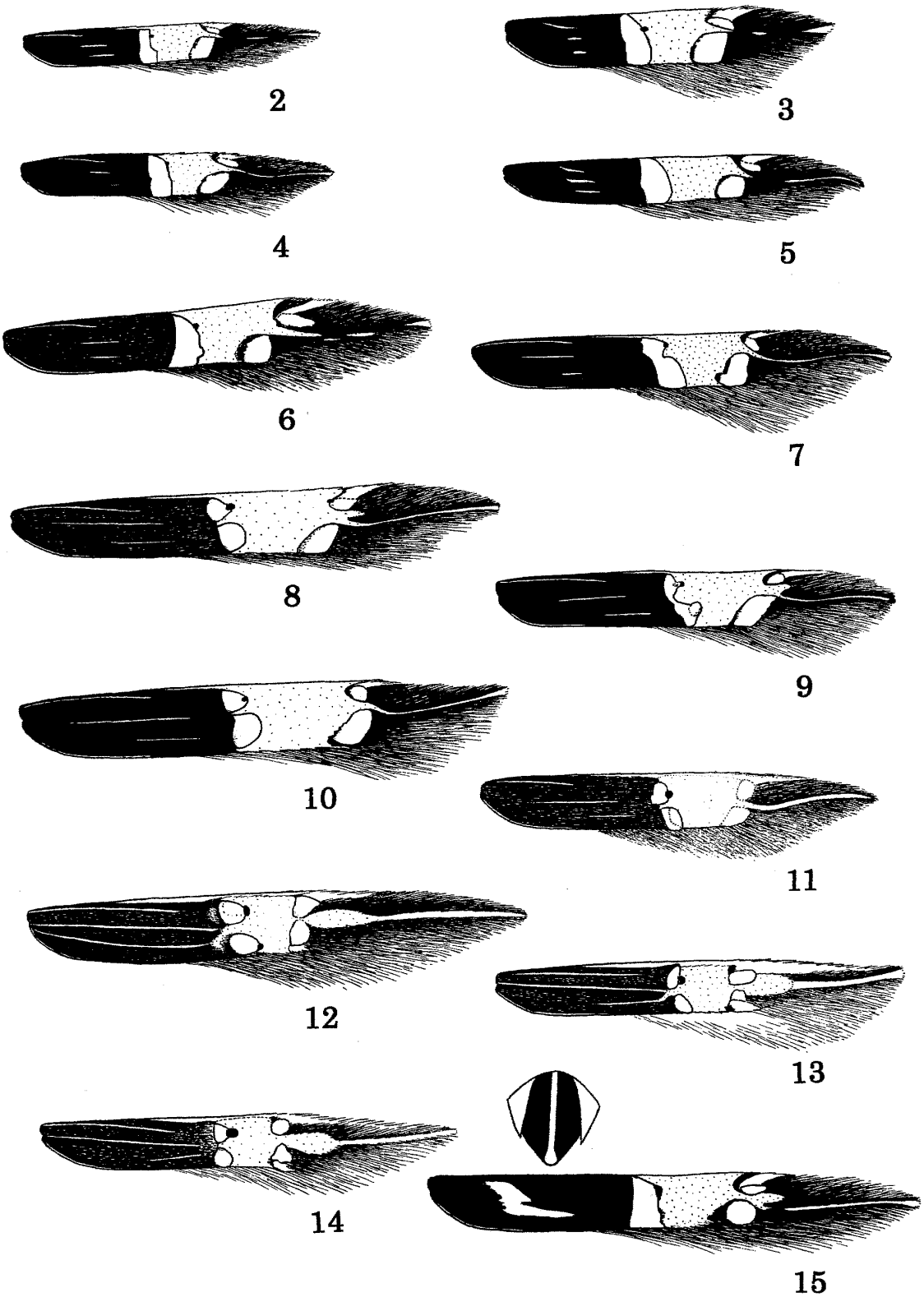
Cosmopterix rhynchognathosella Sinev (Figs 4, 18)

Cosmopterix rhynchognathosella Sinev, 1985: 86; Oku, 2003: 52.

♂, wing length 3.8 mm. Antenna black, apical 2 white, 4 black, 1 white, 1 black. Forewing dark fuscous; silvery-white subbasal lines fine, forming an oblique series, subcostal line from near base to 1/4 obliquely, subdorsal line shortest and weak, fine dorso-basal line toward base; anterior fascia nearly vertical, silvery-metallic, followed above

NII-Electronic Library Service

The Lepidopterological Society of Japan



Figs 2–15. Right forewings of *Cosmopterix* spp. 2. *C. attenuatella* Walker. 3. *C. setariella* Sinev. 4. *C. rhynchognathosella* Sinev. 5. *C. brevicaudella* sp. nov. 6. *C. baihashanella* sp. nov. 7. *C. sichuanella* sp. nov. 8. *C. phyllostachysea* Kuroko. 9. *C. bifidiguttata* sp. nov. 10. *C. nanshanella*. sp. nov. 11. *C. longivalvella* sp. nov. 12. *C. gracilis* Sinev. 13. *C. jiangxiella* sp. nov. 14. *C. dulcivola* Meyrick. 15. *C. argentitegulella* Sinev (with tegulae & thorax).

NII-Electronic Library Service

The Lepidopterological Society of Japan

middle by a small black dot; orange-yellow postmedian band a little narrow dorsally; posterior fascia preceded by some black scales and separated into upper and lower spots by orange-yellow caudal projection of the band, shortly beyond the upper spot; silvery-white sinuate terminal line from near the end of the projection to apex, interrupted near middle; cilia fuscous, apical cilia white.

Male genitalia. Right brachium broadened apically, bent at apical 1/3 in right angle, folded on apical edge, with a pointed horn-like projection protruding upward; anellus lobe curved in middle and apical half broadened, but tapered toward apex; valva rather elongate, ventral edge straight; aedeagus tubular, opening moderate.

Material examined. 1 ♂, Sichuan, Emeishan, Fuguang-si, 15. v. 1979, slide no. 85022.

Remarks. In the male genitalia this species is characterized by the horn-like projection of the right brachium and the rather elongate valva with straight ventral edge.

Distribution. China (Sichuan, Emeishan), Japan, Russia. New record from China.

Cosmopterix attenuatella (Walker) (Figs 2, 16)

Gelechia attenuatella Walker, 1864: 1019.
Cosmopteryx flavofasciata Wollaston, 1879: 438.
Cosmopteryx attenuatella: Walsingham, 1897: 105.
Cosmopteryx mimetis Meyrick, 1897: 339.
Cosmopteryx antillia Forbes, 1931: 356.
Cosmopterix attenuatella: Hodges, 1962: 24; Shen & Liu, 1988: 22.

♂, wing length 3.5 mm. Antenna black, apical 1 black, 2 white, 5 black, 1 white, 1 black, 1 white. Very small and rather slender species. Forewing dark fuscous; silvery white subbasal lines fine, forming an oblique series, antero-costal line silvery-white toward tip; orange-yellow postmedian band moderate, caudal projection of the band protruding horizontally, a little beyond upper posterior spot; terminal line short, forming a long spot midway to apex and a fine spot on apical cilia.

Male genitalia. Right brachium with a folded tip; anellus lobe slender, gently curved, with tapering apex; valva round on ventral edge; aedeagus very slender, tapered apically.

Material examined. 1 ♂, Fujian, Putian, 29. vi. 1978, slide no. 85013.

Distribution. China (Fujian), Japan, Taiwan, Europe, North and South America, Africa, Oceania, etc.

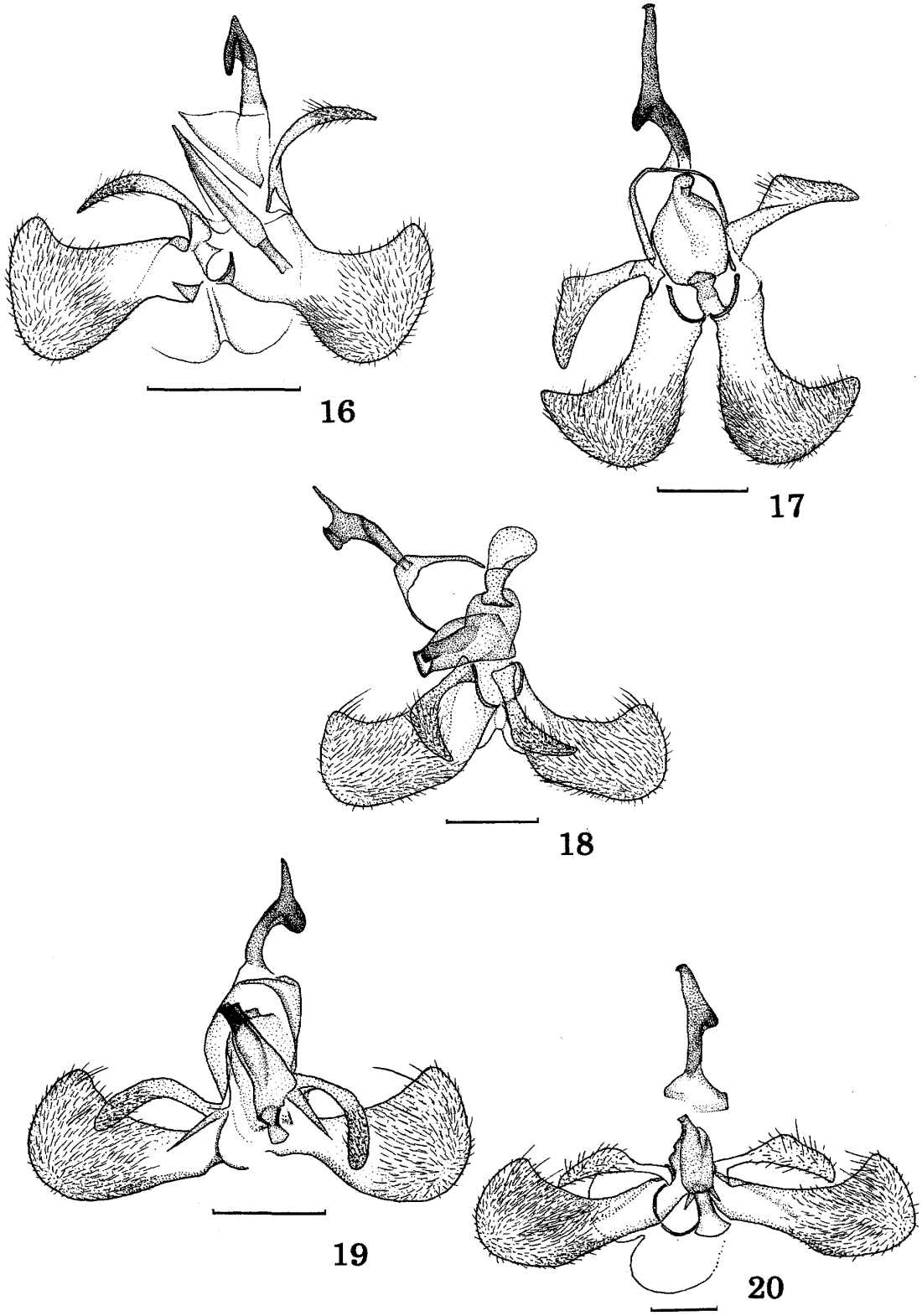
Host plants (outside China). Cyperaceae. *Cyperus rotundus*, *Scirpus* sp., *Melinus minutiflora*.

Cosmopterix brevicaudella Kuroko et Liu, **sp. nov.** (Figs 5, 19)

♂, wing length 4.2 mm. Antenna black, apical 3 white, 4 black, 1 white, 1 black, 2 white. Forewing bronzy-fuscous; subbasal lines rather short, obvious, forming an oblique series, subcostal line oblique, not long; dorsal edge finely white toward base; anterior fascia nearly vertical, golden metallic, without any black dot posteriorly; postmedian band moderate, orange-yellow, a little narrower on dorsal edge; posterior fascia preceded by some black scales and separated into upper and lower spots by an orange-yellow caudal projection which extends somewhat downwards, not beyond the upper spot; silvery-metallic sinuate terminal line from apical 1/5 to near apex, not connecting with end of caudal projection; tip of apical cilia black.

NII-Electronic Library Service

The Lepidopterological Society of Japan



Figs 16–20. Male genitalia of *Cosmopterix* spp. 16. *C. attenuatella* Walker. 17. *C. setariella* Sinev. 18. *C. rhynchognathosella* Sinev. 19. *C. brevicaudella* sp. nov. 20. *C. baihashanella* sp. nov. Scales: 0.2 mm.

NII-Electronic Library Service

The Lepidopterological Society of Japan

Male genitalia. Right brachium with T-shaped apex, one arm pointed and the other rounded; anellus lobe slender, apical half gently curved, with blunt apex; valva with round ventral edge in usual shape; aedeagus slender, opening moderate.

Material examined. Holotype. ♂, Fujian, Putian, 6. vii. 1978, slide no. 85016.

Remarks. Very similar to *C. xuthogastra* Meyrick, 1910 described from Kalimantan in maculation of forewing and shape of male genitalia, but can be separated from it by the valvae having gently curved outer edges (straight in *C. xuthogastra*). Also similar to *C. attenuatella* in maculation of forewing, but can be distinguished by the characters of the male genitalia: beak-shaped right brachium; apex of anellus lobe not tapered but blunt; aedeagus tubular but not tapered apically.

Distribution. China (Fujian).

Cosmopterix baihashanella Kuroko et Liu, **sp. nov.** (Figs 6, 20)

♂, wing length 5.3 mm. Antenna black, apical 4 white, 4 black, 1 white, 1 black, 2 white. Forewing dark fuscous; subbasal lines moderate; golden metallic anterior fascia vertical and followed above middle by a small black dot; yellow-orange postmedian band very wide on costa but on dorsum about 1/2 width of costa; posterior fascia separated into 2 spots by a long and strong caudal projection of the band; golden-metallic upper posterior spot elliptically elongate, situated well posteriorly to lower posterior spot, both spots preceded by black scales; terminal line separated into 2 bluish-metallic spots; apical spot snow-white; cilia fuscous.

Male genitalia. Right brachium long trianguloid on apical portion, with a small thorn at its tip; anellus lobe broad on apical half, broadest in middle; valva somewhat long, gently curved on outer edge; aedeagus rather small, slender bottle-shaped.

Material examined. Holotype. ♂, Beijing, Baihashan, 6. vii. 1973, slide no. 85008.

Remarks. Characterized by a strongly protruding caudal projection and terminal line is consisting of 2 slender spots.

Distribution. China (Beijing).

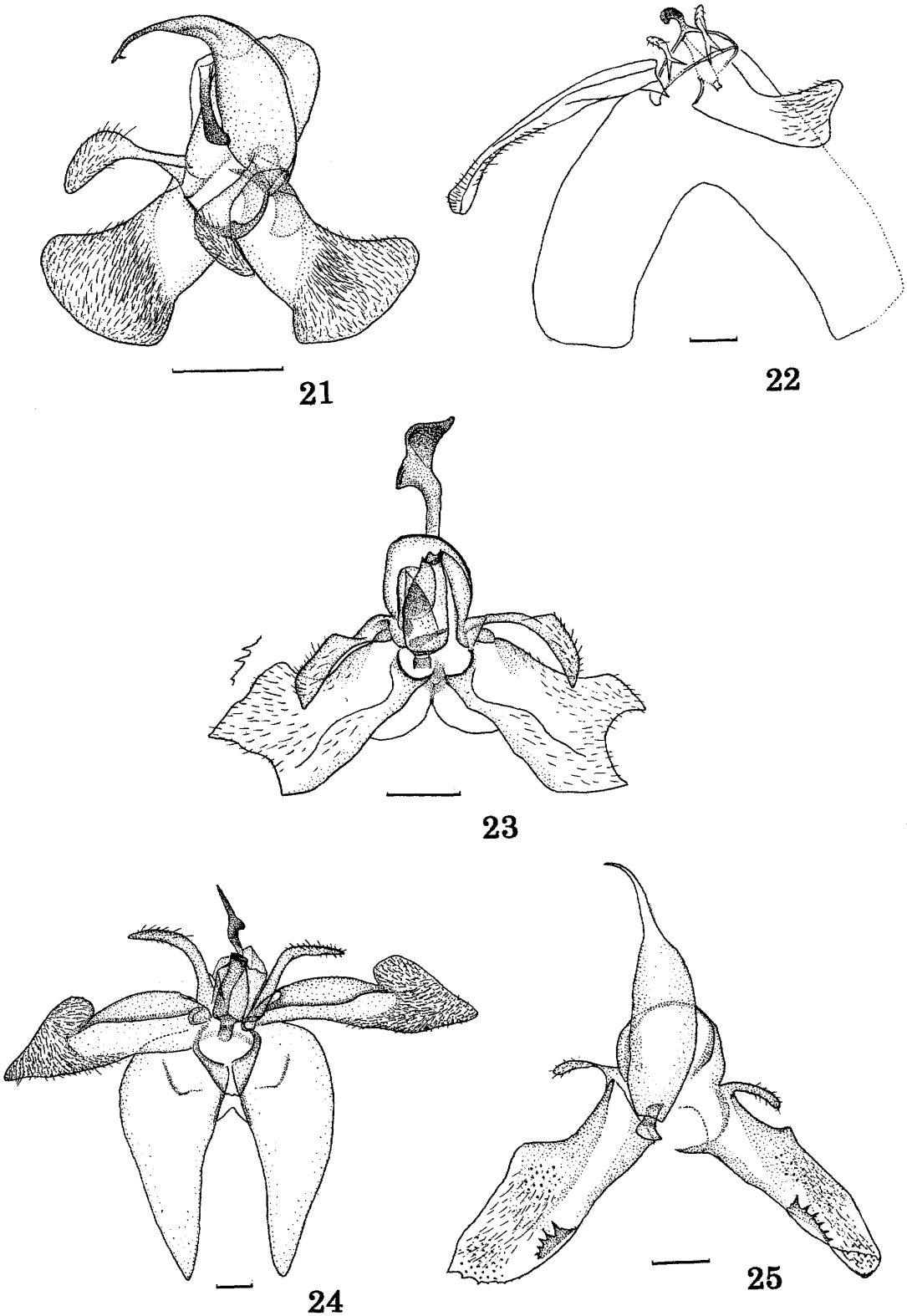
Cosmopterix sichuanella Kuroko et Liu, **sp. nov.** (Figs 7, 21)

♂, wing length 4.6 mm. Antenna black, apical 3 joints white, 4 black, 1 white, 1 black, 1 white. Forewing bronzy-fuscous; subbasal lines fine, subcostal line from base to 1/5, median line from 1/10 to 1/5, subdorsal line short, situated beneath posterior portion of median line, antero-costal line short and silvery-white toward tip, dorsal edge finely white from near base to about 1/5; anterior fascia oblique outwardly and followed above middle by a small black dot, the fascia constricted just below the dot; orange-yellow postmedian band moderate, but narrower dorsally, posterior fascia preceded by some black scales and separated into upper and lower spots by orange-yellow caudal projection, which extends downward obliquely beyond the upper spot; silvery-white terminal line sinuate and narrow, from the end of caudal projection to apex; cilia fuscous, apical cilia snow-white.

Male genitalia. Right brachium slender, club-shaped apically; anellus lobe broad on apical half, angulated, broadest in middle of the lobe; valva stout, right angled on the ventral edge, upper edge of cucullus round; aedeagus prolonged and tapered on apical half, curved downward, its tip very slender with a small thorn.

NII-Electronic Library Service

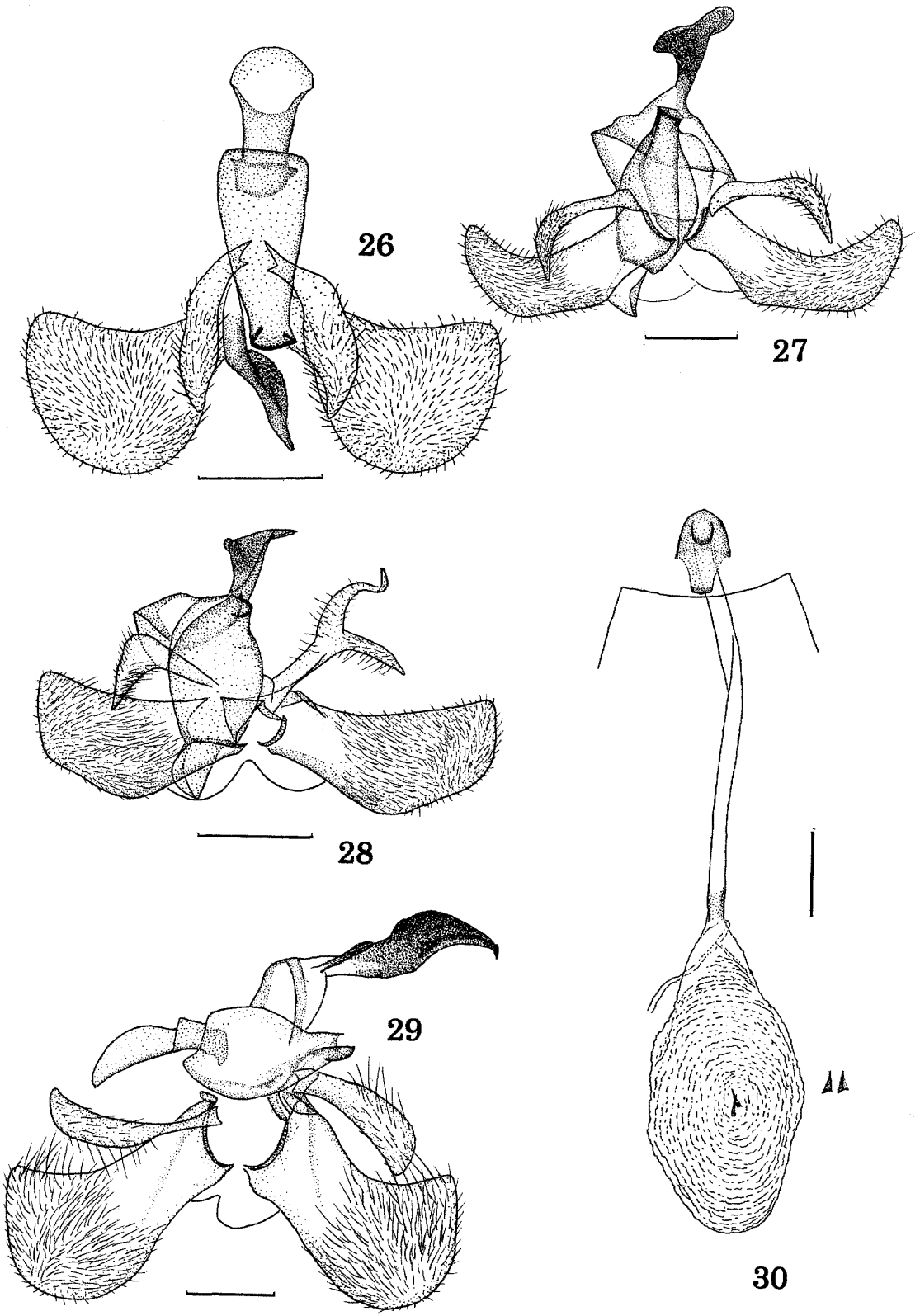
The Lepidopterological Society of Japan



Figs 21–25. Male genitalia of *Cosmopterix* spp. 21. *C. sichuanella* sp. nov. 22. *C. phyllostachysea* Kuroko. 23. *C. bifidiguttata* sp. nov. 24. *C. nanshanella* sp. nov. 25. *C. longivalvella* sp. nov. Scales: 0.2 mm.

NII-Electronic Library Service

The Lepidopterological Society of Japan



Figs 26–30. Male (26–29) and female (30) genitalia of *Cosmopterix* spp. 26. *C. gracilis* Sinev. 27. *C. jiangxiella* sp. nov. 28. *C. dulcivola* Meyrick. 29. *C. argentitegulella* Sinev. 30. *C. bifidiguttata* sp. nov. Scales: 0.2 mm.

NII-Electronic Library Service

The Lepidopterological Society of Japan

Material examined. Holotype. ♂, Jiangxi, Lushan, 12. vi. 1982, slide no. 84002. Paratype. 1 ♂, Sichuan, Emeishan, Guanguo-si, 20. v. 1979, slide no. 85043 (OPU).

Remarks. Differs from *C. rhynchognathosella* in having a rather long median line on the forewing. In the male genitalia, it is characterized by the peculiar shaped aedeagus having a prolonged and curving neck, a character not known in other species of this genus.

Distribution. China (Jiangxi, Sichuan).

Cosmopterix bifidiguttata Kuroko et Liu, **sp. nov.** (Figs 9, 23, 30)

♂♀, wing length 4.6 mm. Antennae broken in examined specimens. Forewing fuscous tinged with yellow; subbasal lines very fine but not interrupted, subcostal line from base to 1/4, median line from 1/7 to 1/3, subdorsal line from 1/4 extending beyond the median one, antero-costal line fine, dorso-basal line from near base to 1/4; anterior fascia oblique outwardly and narrow, constricted in middle, silvery-white, followed by a small black dot above middle and a golden-metallic raised spot above dorsum; postmedian band yellow, rather broadened on costa but on dorsum very narrow (about 1/2 breadth), posterior fascia very oblique, preceded by a few dark scales, separated by a yellow bifurcate patch into upper and lower spots; shining white sinuate terminal line from lower arm of the patch to near apex; cilia pale grayish-yellow, apical cilia fuscous.

Male genitalia. Right brachium broadened on apical half, its apex bluntly pointed; anellus lobe gently curved, apical half broadened trapezoidally; valvae unusual shape and a little asymmetrical, strongly concave on outer margins; aedeagus bottle-shaped, with a moderate opening.

Female genitalia. Lamella antevaginalis similar to that of *C. phyllostachysea*; corpus bursae wrinkly, signa trianguloid.

Material examined. Holotype. ♂, Zhejiang, Fuyang, 20. vii. 1982, reared from bamboo (Tian-shen Xu), slide no. 85004. Paratypes. 1 ♀, Jiangxi, Xingguo, iv. 1980, reared from bamboo (Guang-lu Tong), slide no. 85087; 1 ♀, same locality, 19. iv. 1982, slide no. 84004; 1 ♂, Jiangxi, Lushan, 12. vi. 1982, slide no. 85049; 1 ♂, Zhejiang, Yuhang, 12. vii. 1977, slide no. 80668 (OPU).

Remarks. Very similar to *C. phyllostachysea* in the maculation of forewing, but this species differs from the latter in having the anterior silvery-white fascia with a golden-metallic raised spot, and dark apical cilia (white terminal line not reaching apex). In the male genitalia, this species is characterized by the valvae being concave on the outer margin.

Host plant. Gramineae. A kind of bamboo.

Distribution. China (Jiangxi, Zhejiang).

Cosmopterix longivalvella Kuroko et Liu, **sp. nov.** (Figs 11, 25)

♂, wing length 4.5 mm. Antenna black, apical 3 white, 3 black, 1 white, 1 black, 1 white. Forewing dark fuscous tinged with yellow; subbasal lines fine, median line from 1/7 to 1/3, about twice as long as subdorsal one, antero-costal line silvery-white toward tip; silvery-metallic anterior fascia oblique and divided into 2 spots by anterior projection of postmedian band, not beyond the spots, anterior upper spot followed by a black dot; postmedian band pale yellow; posterior fascia divided into 2 spots by caudal projection, which extends beyond the posterior spots, upper posterior spot with rather long white costal cilia, and situ-

NII-Electronic Library Service

The Lepidopterological Society of Japan

ated posterior to lower spot; rather wide terminal line from the end of caudal projection to just before apex, sinuate and white; cilia dark brown, tinged with yellow apically, apical cilia dark.

Male genitalia. Curiously shaped, right brachium unknown (may be missing); anellus lobe weak, with blunt apex; valva prolonged, with a dentate plate ventrally before apex; aedeagus prolonged, basal half long elliptical, apical 1/3 elongated, tapered and gently curved.

Material examined. Holotype. ♂, Zhejiang, Wenzhou, 13. v. 1982, reared from a kind of bamboo (Tian-shen Xu), slide no. 85005.

Remarks. This species is unique in having an elongated valva with a dentate plate on the valvula in the male genitalia. Very similar to *C. bambusae* Meyrick, 1917 from India in the maculation of the forewing, but the anterior fascia does not divide in the latter.

Host plant. Gramineae. A kind of bamboo.

Distribution. China (Zhejiang).

Cosmopterix phyllostachysea Kuroko (Figs 8, 22)

Cosmopterix phyllostachysea Kuroko, 1957: 31, figs.; Wu & Li, 1997: 36.

♂, wing length 6.0 mm. Very similar to *C. victor* Stringer, 1930 from Japan in forewing maculation, but can easily be distinguished from it by the asymmetrical valvae and very large lobed projections of the 8th sternite in the male.

Material examined. 2 ♂, Jiangxi, Xingguo, vii. 1978, reared from bamboo leaf, slide nos 85100 & 84012.

Distribution. China (Jiangxi), Japan.

Host plant. Gramineae. A kind of bamboo in China; *Phyllostachys bambusoides* Sieb. et Zucc. in Japan.

Cosmopterix nanshanella Kuroko et Liu, **sp. nov.** (Figs 10, 24)

♂, wing length 6.0 mm. Antenna black, apical 3 joints white, 4 black, 1 white, 1 black, 4 white. Forewing bronzy-fuscous; subbasal lines rather fine, subcostal line from base to 1/4, median line from near base to 1/3, subdorsal line from 1/5 to a little beyond median line, antero-costal line fine, dorso-basal line finely white from near base to 1/5; silvery-metallic anterior fascia divided into two spots by anterior projection of postmedian band, upper anterior spot situated a little anteriorly to lower one, with a small black dot posteriorly; yellowish postmedian band broad; lower posterior spot very long, with oblique anterior margin, posterior spots edged anteriorly by a few black scales, a yellow sinuate caudal projection between upper and lower posterior spots and beyond posterior spots; silvery-white nearly straight terminal line from the end of sinuate caudal projection to apex; cilia pale fuscous, apical cilia white.

Male genitalia. Right brachium thickly sclerotized, with a long straight beak-shaped projection, apex pointed; anellus lobe slender, gently curved; valva unusually shaped, acutely angulated on terminal margin, dorsal margin rounded, dorsal side (costa) of valva with wide double structure; aedeagus bottle-shaped; membranous lobes of 8th sternite very large, elongate caudally.

Material examined. Holotype. ♂, Zhejiang, Nanshan, 30. v. 1982 (Tian-shen Xu), slide no.

NII-Electronic Library Service

The Lepidopterological Society of Japan

85009.

Remarks. Similar to *C. acutivalva* Kuroko, 1987 from Thailand in the wing maculation, but this species can be distinguished by the shape of the right brachium, valva and membranous lobes of the 8th sternite in the male genitalia.

Distribution. China (Zhejiang).

Cosmopterix gracilis Sinev (Figs 12, 26)

Cosmopterix gracilis Sinev, 1985: 73, figs; *id.*, 1997: 816.

♂, wing length 5.7 mm. Forewing olive-brown; white subbasal lines rather thick and long, subcostal line from base to 1/3, median line from base to near anterior projection of postmedian band, subdorsal line from base to projection of postmedian band, gently arched, antero-costal line from 1/5 of wing to postmedian band, a little broadened near middle, silvery-white; silvery-metallic anterior fascia divided into round upper and lower spots, followed by a black dot on each spot; postmedian band rather narrow, ochreous-yellow, with whitish suffusion along costa; posterior fascia divided into round upper and lower spots by yellowish caudal projection, which expands beyond the posterior spots to make a long elliptical patch; rather long white costal cilia on upper posterior spot, small white dorsal cilia on lower posterior spot; terminal line broad and straight from elliptical projection to apex; cilia pale grayish-brown.

Male genitalia. Right brachium broadened on apical half, gradually tapered apically; anellus lobe more or less spindle-shaped, tapered apically; valva usual shape, ventral margin gently curved; aedeagus rather slender, bottle-shaped, opening moderate.

Material examined. 1 ♂, Jiangxi, Lushan, 15. v. 1978, slide no. 84007.

Remarks. Similar to *C. dulcivora* Meyrick, 1919 described from Fiji, but differs from it by the long subdorsal line reaching the base of the forewing. In the male genitalia, it can be distinguished by the shape of the right brachium and valva. Also very similar to *C. ingeniosa* Meyrick, 1909 from India in maculation but can be distinguished by the shape of the right brachium.

Distribution. China (Jiangxi), Japan, Korea, Russia. New record from China.

Cosmopterix jiangxiella Kuroko et Liu, **sp. nov.** (Figs 13, 27)

♂, wing length 4.7 mm. Forewing olive-brown, subbasal lines white, rather thick and long, subcostal line from near base to 1/3, median line from base to near anterior upper spot, subdorsal line from 1/4 to yellow projection, antero-costal line developed, dorsal margin finely white toward base; silvery-white anterior upper and lower spots situated vertically, followed by a black dot on upper spot; postmedian band rather narrow, yellowish, with whitish suffusion along costa; silvery-white posterior upper and lower spots situated vertically, preceded by a brown dot on upper spot and a black dot on dorsum and white cilia on lower spot; yellowish elliptical caudal projection of postmedian band connecting with white broad terminal line; cilia ocherous-brown, white costal cilia on upper posterior spot expanding near apex.

Male genitalia. Right brachium with T-shaped apex, tips of both arms rounded; anellus lobe slender, curved downwards, tapered apically; valva rather long and narrow, ventral margin of cucullus straight; aedeagus bulbous, opening rather narrow.

NII-Electronic Library Service

The Lepidopterological Society of Japan

Material examined. Holotype. ♂, Jiangxi, Linjiang Zhen, 7. vi. 1975 (Youqiao Liu), slide no. 85039.

Remarks. Very similar to *C. hamifera* Meyrick, 1909 described from Sri Lanka in the maculation of the forewing and the shape of the male genitalia. But they differ in the following points: the subdorsal line of the forewing is shorter than in *hamifera* and the elliptical projection of the postmedian band beyond the posterior spots is narrower in this species. In the male genitalia, the shape of the right brachium is quite similar in both species, but the shape of valva of the new species is slenderer in comparison with the holotype of *hamifera* (B. M. slide no. 15812).

Distribution. China (Jiangxi).

Cosmopterix dulcivora Meyrick (Figs 14, 28)

Cosmopterix dulcivora Meyrick, 1919: 233; Bradley, 1961: 140; Diakonoff, 1967: 166.
Cosmopterix sublaetifica Kuroko, 1982, **2**: 452, figs; Sinev, 2002: 19 (syn. of *dulcivora*).

♂, wing length 5.0 mm. Forewing brown tinged with ochre; white subbasal lines long and evident but subdorsal one not so long, from 1/4 to 2/5, somewhat oblique upwards; pale yellow anterior projection of postmedian band not beyond anterior spots, but a faint yellowish suffusion anteriorly.

Male genitalia. Right brachium peg-shaped apically; anellus lobes extraordinarily asymmetrical, left lobe right-angled in middle, right one bifurcate; aedeagus bulbous.

Material examined. 1 ♂, Jiangxi, Dayu, 24. vi. 1977, slide no. 85090; 1 ♂ (identified by Meyrick as *dulcivora*), Lautolca, Fiji, Aug. 1919, leaves sugar cane (R. Veitch), B. M. slide no. 31211, in coll. BMNH; 1 ♂ (identified by Meyrick as *dulcivora*), same locality, 30. iii. 1919, (R. Veitch), B. M. slide no. 31212, in coll. BMNH.

Distribution. China (Jiangxi), Japan, Russia, Fiji, Samoa, Philippines (Negros), Java, Queensland.

Host plant. Gramineae. *Miscanthus sinensis* Anderss. in Japan, *Saccharum officinarum* L. in Fiji, the Philippines and Queensland.

Acknowledgments

We wish to express our hearty thanks to Dr S. Yu. Sinev, Zoological Institute, Russian Academy of Sciences, for providing important literature. We are also indebted to Mr Kevin R. Tuck, BMNH, who kindly arranged the loan of necessary specimens.

References

Bradley, J., 1961. Microlepidoptera from the Solomon Islands. *Bull. Br. Mus. nat. Hist.* (Ent.) **10** (4): 9–168, 19 pls.

Diakonoff, A., 1967. Microlepidoptera of the Philippine Islands. *Bull. U. S. natn. Mus.* **257**: 1–484.

Fletcher, T. B., 1933. Life-histories of Indian Microlepidoptera, 2 Ser. *Scient. Monogr. Imp. Colenc. Agric. Res.* **4**: 1–2, pl. 1.

Forbes, W. T. M., 1931. Supplementary report on the Heterocera or moths of Porto Rico. *J. Dep. Agric. P. Rico.* **15**: 339–393.

Hodges, R. W., 1962. A revision of the Cosmopterigidae of America north of Mexico, with description of the Momphidae and Walshiidae (Lepidoptera: Gelechioidea). *Entomologica am.* (N. S.) **42**: 1–171.

Kuroko, H., 1957. Descriptions of *Cosmopterix victor* Stringer and its allied new species (Lepidoptera,

NII-Electronic Library Service

The Lepidopterological Society of Japan

Cosmopterigidae). *Kontyû* **25**: 30–32.
————, 1982. Cosmopterigidae. *In* Inoue, H. *et al.*, *Moths of Japan* **1**: 266–272, **2**: 210–211, pls 11, 276. Kodansha, Tokyo. (In Japanese).
Meyrick, E., 1897. Descriptions of Australian Micro-Lepidoptera, 17. Elachistidae. *Proc. Linn. Soc. N. S. W.* **22**: 297–435.
————, 1909. Description of Indian Microlepidoptera. *J. Bombay nat. Hist. Soc.* **19**: 410–422.
————, 1919. Exotic Microlepidoptera **2**: 225–288.
Oku, T., 2003. Microlepidoptera of the Iwate Prefecture. *Trans. Iwate ent. Soc.* (Suppl.) **2**: 1–157 (in Japanese).
Shen, G. & Y. Liu, 1988. Category of Jiangxi Microlepidoptera. *Editorial Board of Journal of Jiangxi Agricultural University*: 22–23.
Sinev, S. Yu., 1985. New species of the genus *Cosmopterix* Hb. (Lepidoptera, Cosmopterigidae) from the Far East of the USSR. *Proc. zool. Inst. USSR, Academy of Sciences* **143**: 73–94 (in Russian).
————, 1997. A review of cosmopterigid moths of the genus *Cosmopterix* Hb. (Lepidoptera, Cosmopterigidae) of the Parearctic Region. *Ent. Obozr.* **76**: 813–829.
————, 2002. World catalogue of cosmopterigid moths (Lepidoptera: Cosmopterigidae). *Proc. zool. Inst. Russian Academy Sciences* **293**. 182 pp.
Walker, F., 1864. *List of the Specimens of the lepidopterous Insects in the Collection of the British Museum* **30**: 837–1096.
Walsingham, L., 1897. Revision of the West-Indian Micro-Lepidoptera. *Proc. zool. Soc. Lond.* **1897**: 54–183.
Wollaston, E., 1879. Notes on the Lepidoptera of St. Helena, with descriptions of new species. *Ann. Mag. nat. Hist.* (5) **3**: 415–441.
Wu, C. & Li, W., 1997. Butterflies and moths of Huang-shan, China. Science *Press, Anhui Province*: 36–37.

摘　　要

新種の記載を含む中国の *Cosmopterix* 属の研究 (鱗翅目, カザリバガ科) (黒子　浩・刘　友樵)

従来, 中国からの *Cosmopterix* 属は *C. zieglerella*, *C. fulminella*, *C. attenuatella*, *C. phyllostachysea* の4種が知られるに過ぎなかった. 今回著者らは中国科学院動物研究所に所蔵される標本を調査7新種, *C. brevicaudella* (福建), *C. baihashanella* (北京), *C. sichuanella* (江西, 四川), *C. bifidiguttata* (浙江, 江西), *C. longivalvella* (浙江), *C. nanshanella* (浙江), *C. jiangxiella* (江西)を記載し, 5新記録種, *C. argentitegulella* (江西), *C. setariella* (江西), *C. rhynchognathosella* (四川), *C. gracilis* (江西), *C. dulcivola* (=*C. sublaetifica*) (江西)を再記載, 2既知種, *C. attenuatella* (福建), *C. phyllostachysea* (江西)を記録した. 中国に分布する本属の種は, 雄交尾器の特徴に広い多様性がみられるので, 100種を越す種が分布するであろうと推測される. *C. sublaetifica* は日本では各地に生息する種であるが, Sinev (2002) により *C. dulcivora* のシノニムとされた. 今回模式産地標本を検し, それを確認した.

摘　　要

中国尖蛾属 *Cosmopterix* Hübner研究及新种记述 (鳞翅目, 尖蛾科) (黑子　浩・刘　友樵)

文中记述了中国尖蛾属 *Cosmopterix* Hübner7新种, 即短尾尖蛾 *C. brevicaudella*, 百花山尖蛾 *C. baihashanella*, 四川尖蛾 *C. sichuanella*, 双斑尖蛾 *C. bifidiguttata*, 南山尖蛾 *C. nanshanensis*, 长瓣尖蛾 *C. longivalvella*, 和江西尖蛾 *C. jiangxiella*; 5新记录种, 即银尖蛾 *C. argentitegulella*, 毛尖蛾 *C. setariella*, 颚尖蛾 *C. rhynchognathosella*, 细尖蛾 *C. gracilis*, 和丽尖蛾 *C. dulcivola*, 以及两个已知种, 伪尖蛾 *C. attenuatella*, 和竹尖蛾 *C. phyllostachysea*. 在中国分布的本属的种, 雄性交尾器的特征显现出丰富的多样性, 估计会超过百种. 本文提供了成虫前翅和雄性外生殖器特征图. 全部标本保存在中国科学院动物研究所标本馆.

(Accepted December 26, 2004)

Published by the Lepidopterological Society of Japan,
5-20, Motoyokoyama 2, Hachioji, Tokyo, 192-0063 Japan

NII-Electronic Library Service